

Discussion on Management and Maintenance of Computer Laboratory in Universities

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Abstract

As an important platform of computer course teaching in universities, computer laboratory is an effective way to ensure the teaching effect and create a good education and teaching environment. Based on the characteristics of computer laboratories, universities need to formulate corresponding plans and measures to strengthen the management ability of computer laboratories in carrying out corresponding management and maintenance work. This paper focuses on reality and actively discusses the strategies and methods of computer laboratory management and maintenance in Universities under the new situation from multiple angles, in order to ensure the smooth operation of computer laboratory through the effective intervention of management and maintenance strategies.

Keywords

Universities; Computer laboratory; Management initiatives; Maintenance method.

1. Introduction

In the process of setting up computer courses in universities, in order to ensure the teaching quality and improve students' computer theoretical level and practical ability, computer laboratories are often established to meet the relevant requirements of daily teaching activities [1]. Due to the educational orientation of university computer laboratory, its use frequency is high and the types of installed software are diverse. Under the influence of many factors, the probability of computer hardware and software failure increases, which affects the role of computer laboratory education. In order to deal with this situation, universities need to do well in management and maintenance, and strengthen the management ability of computer laboratories in universities.

2. Problems in the management and maintenance of computer laboratories in Universities

Sorting out the existing problems in the management and maintenance of computer laboratories in universities at this stage will help the staff to quickly change their ideas, grasp the requirements of the management and maintenance of computer laboratories as a whole, and lay a solid foundation for the establishment and implementation of subsequent management and maintenance measures.

2.1. The hardware damage rate of computer laboratory is high

Computer laboratories in universities take all students as educational objects. In order to meet the actual teaching needs of basic computer theory, they often purchase computers in large quantities by unified procurement. After purchasing, the update speed of computer hardware system and software system is slow. The occurrence of this kind of situation makes the computer prone to all kinds of equipment failures in the use process, which not only fails to meet the use requirements of the computer, but also shortens the service life. This invisibly

increases the management and maintenance cost of the computer [2]. In the process of using computer laboratory to carry out relevant teaching, universities often need to install a variety of operating programs to provide technical support for the learning of computer related theoretical knowledge and the practical application of theoretical knowledge. Due to the lack of overall planning for the installation of the whole computer program, a large number of data, programs and software are installed on the server during the operation of the computer. The occurrence of this situation not only reduces the running speed of the computer, affects the normal use of the computer, but also increases the probability of computer virus outbreak to a great extent.

2.2. Computer laboratory software has a high virus infection rate

In the daily use of computer laboratories in universities, computers are more likely to be attacked by viruses. After the computer is attacked by virus, it affects the normal use of the computer, resulting in the leakage or loss of information. Some viruses spread throughout the computer laboratory through the local area network, leading to the paralysis of computers in the laboratory [3]. Specifically, when students enter the computer laboratory to carry out corresponding learning, for their own learning needs, they often use storage devices to transmit relevant data and information, while the self-contained storage devices may carry computer viruses, which affects the normal operation of the computer laboratory. Students often download software from related websites when using related computers in the computer laboratory. If the downloaded software is not available, the necessary virus killing and killing processing is not carried out. The virus it carries may infect the computer, which may reduce the security of the computer. In the process of software program installation, rogue software may be attached. The running of rogue software makes the computer appear larger security vulnerabilities, and the probability of being attacked by viruses gradually increases.

2.3. Lack of computer laboratory management system

During the operation of computer laboratories in universities, it is necessary to focus on safety management, and with a series of safety management measures, prevent the occurrence of safety accidents and create a good use environment. Due to the large number of users and diverse application scenarios of computer laboratories in universities, there is a lack of necessary management measures and methods in safety management, which leads to the lack of management mechanism and affects the final safety management effect of computer laboratories. The root cause of this situation lies in the fact that universities have failed to establish corresponding safety management schemes according to the operation requirements of computer laboratories, which makes it difficult for staff to find and solve problems quickly in routine maintenance and management. For example, universities have not established a fire prevention mechanism for computer laboratories. After the computer laboratories are used, the staff can't do a good job of inspection in time, which leads to the situation that the power supply is turned on for a long time, the temperature of computer equipment is too high, and fires are caused. At the same time, some students did not operate the computer equipment in accordance with the relevant regulations in the process of entering the computer laboratory and carrying out relevant learning. The occurrence of this situation made the damage rate of the computer equipment high, making it difficult for the computer laboratory to achieve the expected use goal [4]. The overall investment of computer laboratory is high. In the process of daily management, if the necessary safety management is not done well, the probability of equipment theft cases is relatively high, resulting in huge economic and property losses. In order to deal with this situation, college staff should seriously do a good job in safety management in the process of computer laboratory management, give full play to the guiding role of safety management mechanism, prevent all kinds of emergencies, and create a good external space for the daily use and operation of computer laboratory.

2.4. The management team of computer laboratory is incomplete

In the process of daily management and maintenance of computer laboratories in universities, different contents are involved. To ensure that all kinds of management tasks are put in place, it is often necessary for the staff to have strong professional ability and master computer management skills, and to flexibly adjust the management scheme and formulate corresponding management plans according to the relevant situation of the computer laboratory, so as to realize early detection and quick treatment of equipment problems. However, according to the actual situation at this stage, some university computer laboratory managers lack the corresponding professional background and operation skills, and they can quickly find, evaluate and deal with the problems in computer laboratory operation, which affects the educational value of computer laboratory.

3. Precautions for management and maintenance of computer laboratory in Universities

There are many contents involved in the management and maintenance of computer laboratories in universities. In order to ensure the effectiveness of management and maintenance, the staff need to learn from the past experience, make clear the key requirements of computer laboratory management and maintenance, straighten out matters needing attention, refine key links and gradually eliminate management and maintenance loopholes.

3.1. Do a good job in the operation environment management of Computer Laboratory

In the daily management and maintenance activities of the computer laboratory, the staff should earnestly build the laboratory operating environment, and gradually reduce the management difficulty of computing technology through the creation of the experimental environment. Under the guidance of this idea, the staff need to carry out relevant work such as dust prevention, temperature and humidity control, etc., and create a good external environment for the operation of the computer through the creation of the operating environment, so as to reduce the occurrence of computer failures. Specifically, in the dust-proof treatment, the special person is responsible for regularly carrying out the plot of the laboratory and cleaning the computer shell, mouse, keyboard, desktop, etc. by using rags, so as to avoid dust accumulation, affect the heat dissipation of computer equipment, lead to the occurrence of computer failures and eliminate fire hazards. In addition to external cleaning, the staff also need to regularly clean the inside of the computer, and use professional technical equipment such as hair dryer and brush to carry out dust removal. On the basis of dust-proof treatment, the staff shall control the temperature and humidity in the laboratory as required. From past experience, during the operation of computer equipment, higher requirements for temperature and humidity, such as higher ambient temperature, will reduce the performance of electronic components and shorten the service life. Based on this internal relationship, the internal temperature and humidity management of the computer laboratory should do a good job of control, and control the temperature of the laboratory within the range of 15 °C to 30 °C, so as to avoid the high temperature that affects the daily use of the computer. The humidity should be controlled in the range of 40% to 60%. In order to achieve this goal, necessary temperature and humidity control equipment should be installed. In case of abnormal temperature and humidity, the control of temperature and humidity can be quickly completed in a short time with the help of related equipment, so as to create a good external environment for the normal operation of the computer.

3.2. Continuously improve the ability of computer fault diagnosis

In order to ensure the effective operation of the computer, the staff need to establish a fault diagnosis mechanism and strengthen the maintenance and management ability of the computer hardware. For example, in the process of computer motherboard failure, the staff need to take the lead in checking BIOS, and make necessary discharge or battery replacement treatment, so as to eliminate motherboard failure. In the process of dealing with the memory failure, the staff need to take corresponding technical measures to deal with it according to the specific performance of the memory failure. For example, the staff pulls out the memory module and then inserts it back to complete the preliminary troubleshooting of the memory fault. If the memory still cannot be affected, the memory module should be replaced. For the display fault, the staff can start with resolution debugging, graphics card driver installation and other methods to do a good job in the analysis and troubleshooting of the display fault, so as to ensure the display function.

3.3. Install and update software programs in an orderly manner

The development of the management and maintenance of computer laboratories in universities requires managers to adhere to the problem-oriented, formulate corresponding management and maintenance strategies under the guidance of scientific principles and practical principles, and realize the effective management of computer operating environment, software and hardware facilities [5]. In the process of software installation, computer laboratories in universities should do a good job of installing software programs in an orderly manner according to the usage scenarios. Under the guidance of this idea, we should regularly do a series of work such as software program installation and update to ensure the practicability of the software program. At the same time, increase the installation of firewall and virus detection software, reduce the harm of virus to computer laboratory through necessary protective measures, and form a safe and efficient use environment. At the same time, restore the computer hard disk to ensure the integrity of hard disk data, avoid data loss, and ensure the security of computer laboratory data in universities.

3.4. Establish and improve the management mechanism of Computer Laboratory

In the maintenance and management of computer laboratories in universities, we should establish a sound management mechanism, take the system as the traction, guide the staff to better develop new corresponding management computer hardware and software, and promote the efficient and stable operation of computer equipment. In addition to equipment management, we also need to do a series of work such as personnel training. Through a series of training, we should gradually enhance the professional quality of staff, make them master corresponding skills, and better integrate them into the daily management and maintenance of computer laboratories in universities, so as to ensure the effective disposal of computer equipment hardware, software and other component modules and keep them in a benign state, Reduce the occurrence of equipment failure, so that the computer laboratory can better serve the requirements of teaching activities in universities.

4. Conclusion

The management and maintenance of computer laboratories in universities has far-reaching influence on the realization of educational value of computer laboratories, and is an important way to improve the efficiency and stability of computer operation. In order to promote the smooth development of relevant management and maintenance work, starting from multiple dimensions, this paper systematically analyzes the key requirements of computer laboratory management and maintenance work, takes effective means, and constructs a complete and

standardized management and maintenance mechanism to ensure that the computer laboratory always maintains a benign operation state and reduce the occurrence of computer faults.

Acknowledgments

Project: Supported by Ningxia University Undergraduate Teaching Engineering Project in 2020 (NXDXJG202065).

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